

# **LOCAL EMERGENCY PLANNING COMMITTEES**

**HISTORY OF THE IMPACT OF CHEMICAL  
INCIDENTS ON THE PUBLIC**

**HISTORY AND DEVELOPMENT OF  
HAZARDOUS MATERIALS REGULATIONS**

**CURRENT APPLICATION OF LOCAL  
PLANNING COMMITTEE RESPONSIBILITIES**

**HIT THE ENTER KEY TO ADVANCE THE LEARNING MODULE PRESENTATION**

# Important Information

This e-learning module has been created in *Microsoft Office PowerPoint 2007™*. To advance the slides you may use the enter key, left mouse button, track ball or arrow keys. To stop the slide show press the escape button.

There are hyperlinks throughout this module that will guide you to web resources that have more in depth information about the various topics we examine. Access to the internet is recommended to achieve maximum benefit from this module.

Depending upon your computer operating system and/or browser you may or may not be able to access the hyperlinks by merely clicking the link. If you find that you cannot just right click the mouse while hovering over the link and you should see a drop down menu with a open hyperlink option. Please contact me if you find any inoperable links

It is worth noting that there are a number of resources regarding the presented information. Anything other than the actual laws may have conflicting numbers posted on various web sites and you may discover discrepancies, especially when looking at final numbers. The key concepts to grasp are the purpose of the Local Emergency Planning Committee, where the need for regulation originated and how participation directly affects your local community.

The hyperlinks in this document are to permit you to view in depth information regarding the summarized information contained in the paragraphs. I encourage the use of the hyperlinks as many go directly to the agencies that impact the Local Emergency Planning Committee development and current operation. This module covers the history, development and current examples of Local Emergency Planning Committees

# Important Information

The goal of this e-learning module is to provide you information about the Local Emergency Planning Committee (LEPC) that should exist in all communities where facilities use and/or store threshold planning quantities of hazardous chemicals. The United States Environmental Protection Agency (USEPA) has developed regulations that requires the formation of *LEPCs*. This learning module has been divided into three leaning areas that are summarized below.

**Part 1** of the module will discuss the history of three hazardous waste sites that influenced today's 'Superfund' regulations. The response and clean up of these sites brought to light the risk of uncontrolled use, storage and disposal of hazardous chemicals. The discovery and subsequent cost of remediation was shocking. It is important to note these incidents were of national significance and led to the development of current regulations and development of methods for responding to such incidents.

**Part 2** of the module will focus on the history or regulation development of the United States Environmental Protection Agency (USEPA) leading up to the regulation that required the development of Local Emergency Planning Committees.

**Part 3** of the module will examine current LEPCs and look at examples of how they function in their respective communities.

**Authors note:** This learning module is primarily concerned with the understanding of and compliance with USEPA regulations. The information contained herein is assembled from open sources and in large part from the **USEPA web site**. You are welcome to use any of my work but when going to website links that are not a government publication please follow their respective wishes in regards to copying information from those sites.

Thank you for choosing to learn more about hazardous chemicals and how your local community should prepare to respond to chemical incidents. For the purpose of this module we will use a United States Environmental Protection Agency (USEPA) definition for hazardous chemicals found in the Emergency Preparedness and Community Right to Know Act (EPCRA). On the ***EPCRA webpage*** it states:

***Hazardous chemicals are any substances for which a facility must maintain a Material Safety Data Sheet (MSDS) under the OSHA Hazard Communication Standard, which lists the criteria used to identify a hazardous chemical. MSDSs are detailed information sheets that provide data on health hazards and physical hazards of chemicals along with associated protective measures. Over 500,000 products have MSDSs which are normally obtained from the chemical manufacturer.***

Please note that hazardous substances come in many forms i.e. pure product, mixed chemicals, waste materials and recyclable materials in liquid, solid and gaseous states. While this module references USEPA regulations you should be aware that hazardous substances are also regulated by the United States Department of Transportation (USDOT), United States Coast Guard (USCG), Occupational Safety and Health Administration (OSHA) and the International Air Transport Association (IATA) as well as individual State and ***Local regulations***.

[EPCRA webpage](#)

[Hazard  
Communication  
Standard](#)

[Louisville Metro  
Hazardous  
Materials  
Ordinance](#)




# History of Hazardous Waste Incidents

The next slides examine three notorious examples of chemical contamination and are the beginning of history that led to the recognition of the consequences of that contamination and necessity for regulation of hazardous materials in the United States.

These examples of contamination severely impacted public health and well being and required unprecedented financial funding for remediation

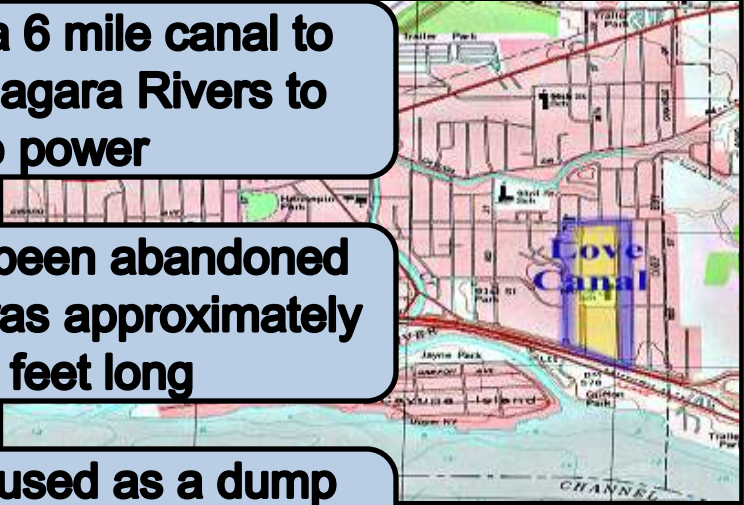
These examples fomented the development of our current regulations, newer and more effective remediation methods, standards for emergency response as well as training for work at hazardous chemical sites and accidents.

# Love Canal, NY




**1892 - W.T. Love proposes a 6 mile canal to connect Upper and Lower Niagara Rivers to provide cheap hydro power**

**1920 - The canal project has been abandoned and sold at public auction. It was approximately 60 feet wide and 3000 feet long**

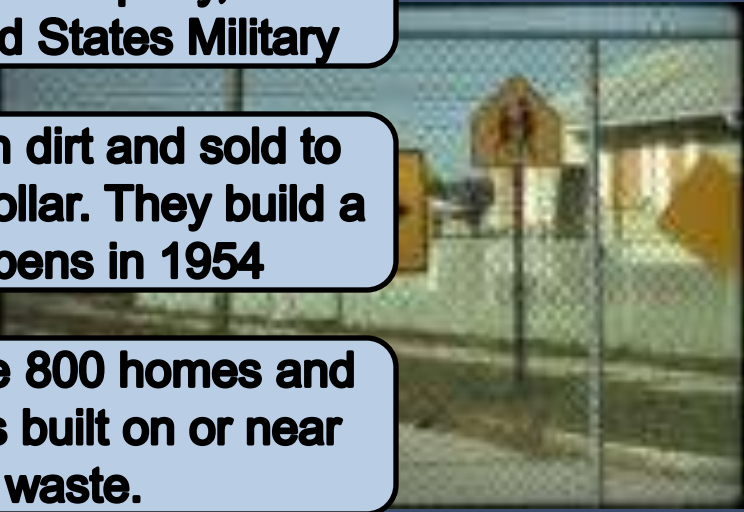


**1920 - 1953 Love canal was used as a dump by the Hooker Chemical Company, City of Niagara and the United States Military**



**1953 - the site is covered with dirt and sold to the Board of Education for 1 dollar. They build a 400 student school that opens in 1954**

**1978 – By this time there were 800 homes and 240 low income housing units built on or near 20,000 tons of toxic waste.**



# Love Canal, NY

The Love Canal was an 1892 project that was abandoned in 1920 and turned into a toxic waste landfill. In 1953 the landfill was covered with dirt and opened up for residential development. Despite containing over 20,000 tons of toxic waste.

The residents discovered the toxic waste issue and began to correlate anecdotal information demonstrating problems. By example the north end of the canal had higher than normal breast cancer rates. In the southern end of the canal there were higher than normal incidents of reproductive issues. When residents went to their physicians they often met other residents there for the same complaints.

When the government finally admitted there was an issue and they relocated a small number of residents and advised remaining residents not to use some areas of the community and to stay out of their basements. The remaining residents became incensed and went to their homeowners' association in an attempt to plead with the government to help them.

The homeowners association actually took 2 EPA representatives hostage when they came to meet with them. This gained national media attention and ultimately lead to all residents being offered the opportunity to be relocated. Lois Gibbs was the president of the association and became an activist for environmental responsibility.

The cleanup cost to date has exceeded 233 Million dollars. In 1980 congress passed the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) also known as Superfund.

[EPA Region 2  
Love Canal  
Documentation](#)

[Boston University  
Love Canal  
website](#)

[Lois Gibbs Video  
on Superfund 365  
Website  
must see](#)

[U.S. Government  
sues Hooker  
Chemical Co.](#)



# Times Beach, MO



1925 - 67.50 buys a 20x100 lot in a resort community with 6 months free newspaper from the St. Louis Star-Times

1929 to 1948 – The great depression, gas rationing and flooding turns Times Beach into a lower middle class community



1972-1976 – The city pays a contractor to spray oil on the dirt roads to suppress dust. The oil contains Dioxin a human carcinogen.

1976-1985 – CDC investigates, USEPA investigates, Dioxin and PCB levels are extremely high. The town is purchased by the USEPA and evacuated.



# Times Beach, MO

In 1925 Times Beach Missouri was visualized as a resort community. Nature and other local events conspired against the resort and it initially became a low income community that eventually progressed to lower middle class.

Unable to afford paved roads the city elected to hire a contractor to spray oil on the community roadways to suppress dust . That contractor unwittingly accepted oil from a local facility who had themselves contracted with a larger facility to dispose of their oil.

The oil from the larger facility, a defense department contractor who had manufactured Agent Orange during the Vietnam conflict, was contaminated with Dioxin. Later, polychlorinatedbisphenyls (PCB) were also discovered in the soil.

The United States government sued Northeastern Pharmaceutical and Chemical Company as a result.

Approximately 265,000 tons of contaminated soil and debris from Times Beach and 28 other sites was incinerated to destroy the hazard. Clean up cost and relocation of the residents of Times Beach exceeded 110,000,000 dollars.

[USEPA Times  
Beach Mo.  
Record of  
Decision](#)

[Wikipedia Times  
Beach Webpage](#)

[USEPA Times  
Beach Mo.  
History Webpage](#)

[US Department  
of Justice Press  
Release](#)

# Valley of the Drums, KY



**23 Acres in Bullitt County Kentucky**

**Waste Disposal Site from 1967 to 1977**

**>17,000 drums removed from this site**

**100 residents within 1 mile**

**This area was zoned for agriculture**

# Valley of the Drums, KY

The A.L. Taylor site was one of the early sites that demonstrated the need for a comprehensive regulation for protection of the environment. More than 17,000 drums were removed from that site and more than 5000 contained hazardous waste.

In March of 1979 the USEPA performs emergency response activities at the site for a total cost of 650,000 dollars.

The Superfund legislation does not become law until December 11, 1980 but the Valley of the Drums is ultimately listed as Federal Superfund Site. The cost of the emergency response prior to the complete remediation of this site was an early indicator that the government could not fund environmental remediation for all the companies in the United States that dumped their waste at uncontrolled site or otherwise improperly handled their waste.

Check out the History of Bullitt County link for a short video about the Valley of the Drums.

[History of Bullitt  
County, KY](#)

[USEPA  
A.L. Taylor  
Information Site](#)

[Wikipedia  
Valley of Drums  
Link](#)

# Valley of the Drums, KY

## *Excerpt from EPA record of Superfund Decision*

### PROGRAMMED CONSTRUCTION COST ESTIMATE A. L. TAYLOR SITE REMEDIATION

PROJECT START-UP AND CLOSE OUT	\$ 28,500.00
HEALTH AND SAFETY	\$ 22,000.00
SITE PREPARATION	\$ 43,410.00
CAP PLACEMENT	\$372,620.00
RESTORATION	\$ 81,749.00
SUB-TOTAL	\$548,279.00
CONTINGENCIES (25% OF SUBTOTAL)	\$137,070.00
ENGINEERING DESIGN, SUPERVISION AND CONTRACT MANAGEMENT	\$110,000.00
<b>TOTAL</b>	<b>\$795,349.00</b>

**Note – This is not the total remediation cost rather just a basic construction estimate.  
Use the record link to see the estimates for all work exceeding 2 million dollars.**

[Record of  
Superfund  
Decision](#)



# Part 1 Learning Points

Which of the answers below did the sites discussed in the history section have in common?

1. The area residents had no idea that they lived in an area where hazardous waste had been or was being dumped.
2. The hazardous wastes that impacted the public were disposed of by large corporations without regard to the public health.
3. The laws in place at the time of much of the dumping were not sufficient to prevent contamination of the environment.
4. The Federal government (taxpayers) would have been unduly burdened by funding clean up of hazardous waste sites that had been created by private entities.

# Part 1 Learning Points

Which of the answers below did the sites discussed in the history section have in common?

1. The area residents had no idea that they lived in an area where hazardous waste had been or was being dumped.
2. The hazardous wastes that impacted the public were disposed of by large corporations without regard to the public health.
3. The laws in place at the time of much of the dumping were not sufficient to prevent contamination of the environment.
4. The Federal government (taxpayers) would have been unduly burdened by funding clean up of hazardous waste sites that had been created by private entities.

**All answers are correct!**

# Regulations

October 20, **1965** The Lyndon Johnson administration passed the Solid Waste Disposal Act. This was a sign that government was aware of a growing problem. While addressing solid waste issues it did not pertain to waste that had been previously disposed.

December 2, **1970** Richard Nixon's' administration creates the United States Environmental Protection Agency. This new agency was charged with oversight of air , land and water quality. This new agency had legal authority to seek remedy against polluters. This was an improvement over previous groups that were often just charged with discovering the extent of a problem and then had no authority to pursue legal remedy.

October 21, **1976** Congress passes the Resource Conservation and Recovery Act (RCRA). This was an amendment to the Solid Waste Disposal Act . It added some critical language to strengthen regulation of hazardous waste. The cradle to grave concept in RCRA made companies responsible for hazardous waste from the time they created the waste until they properly disposed of that waste. Underground storage tank regulations and additional solid waste regulation were also elements of RCRA. Expansion of the National Contingency Plan of 1968 plus RCRA set in place a process under which the Federal government could respond to hazardous chemical incidents.

[Solid Waste  
Disposal Act of  
1965](#)

[The Birth of the  
USEPA](#)

[Resource  
Conservation  
and Recovery  
Act](#)

# Regulations

We have learned from the preceding section various government agencies have been aware of the existence of contamination of the air, soil and ground water that affects the health of the general public since at least the 1960s. In one 24 hour period it would be possible to drive a car to the three sites we studied in section one of this module. In that period you would have seen the results of financial expenditures in excess of 5 million dollars.

August 7, **1978** President Carter approved 10,000,000 dollars in emergency funds to relocate families from Love Canal, NY.

June 13, **1979** President Carter proposes the creation of a hazardous waste clean up fund. Then USEPA Administrator Douglas M. Costle stated in the proposal that *"A rash of recent incidents resulting from improper disposal of hazardous wastes has made it tragically clear that faulty hazardous waste management practices, both past and current, present a grave threat to public health and to the environment."*

Another important statement within that proposal : *The Administration also is requesting FY **1980** supplemental appropriations for the Environmental Protection Agency and Department of Justice to investigate and enforce hazardous waste problems.*

[President Carter Approves Relocation Funds for Love Canal](#)

[Carter Issues Love Canal Emergency Declaration](#)  
[USDOJ Website](#)

[Hazardous Waste Clean Up Fund Proposal 6/13/79](#)



# Regulations

November of **1984** Congress passes amendments to RCRA in the form of Federal Hazardous and Solid Waste Amendments (HSWA). RCRA gets a mandate to phase out land disposal of hazardous waste. The EPA gets more enforcement authority and the underground storage tank program is expanded.

December of **1984** A chemical release at a Union Carbide plant in Bhopal, India kills 2500 people.

August of **1985** A leak at a Union Carbide plant in Institute, West Virginia injures 6 employees and sends 100 residents to the hospital. The release at a Union Carbide plant came on the heels of the tragic incident in Bhopal and spurred the EPA to develop the Chemical Emergency Preparedness Program (CEPP). It was a voluntary program that provided guidance to state and local authorities.

[USEPA Region 5  
Land Ban Provisions  
for the 1984 HSWA](#)

[Chemical Emergency  
Preparedness  
Program History](#)

[Department of  
Energy Document  
Showing Required  
Hazardous Waste  
Training](#)

# Regulations

November of **1985** the EPA publishes the ***Chemical Emergency Preparedness Program (CEPP) Interim Guidance***. They requested public review and comment. This document gave guidance on how to organize planning committees, create emergency response plans, and perform hazards analysis on a based on specific site characteristics.

April of **1986** the EPA, Federal Emergency Management Agency (FEMA), and 13 other federal agencies work together to revise FEMA's Planning Guide and Checklist for Hazardous Materials Contingency Plans.

October 17. **1986** Congress pass the Super Fund Amendments and Reauthorization Act (SARA) which amended the CERCLA legislation. The SARA made important changes to CERCLA based on what the government learn in 6 years of environmental remediation projects, addition of site to the National Priorities List.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) , as required in Section 105 of the CERCLA is also amended by SARA. It states the actions under the NCP are applicable to response action taken under CERCLA.

[Hazardous  
Materials  
Emergency  
Planning Guide](#)

updated version of the original 1987  
document

[NCP  
Final Rule](#)

[SARA  
Overview](#)

# Regulations

The Superfund Amendments and Reauthorization Act creates the ***Emergency Planning and Community Right to Know Act (EPCRA)***. EPCRA is also commonly referred to as SARA Title III.

The SARA Title III / EPCRA, rules can be divided into four major areas:

- Section 301-303      Emergency Planning
- Section 304              Emergency Release Notification
- Sections 311-312      Community Right-To-Know Reporting
- Section 313              Toxic chemical release inventory

These elements of EPCRA are intended to guide and assist states and local communities in developing a broad understanding of chemical hazards for the community and separate facilities. That understanding is then applied to policies and procedures with the goal of minimizing risk to the citizens.

[EPCRA](#)  
[Web Page](#)

# Regulations

## **Section 301-303      Emergency Planning**

States will develop a State Emergency Response Commission SERC.

SERCs will develop Local Emergency Planning Committees.

Local facilities with Extremely Hazardous Substances (EHS) will participate in the planning process.

## **Section 304              Emergency Release Notification**

Facilities will immediately report, to State and Local warning points, accidental releases of hazardous substances in Reportable Quantities (RQ) as defined under CERCLA regulations.

Information will be made available to the public.

## **Sections 311-312      Community Right-To-Know reporting**

Facilities will maintain Material Safety Data Sheets (MSDS) describing hazards of substances stored and used on site.

Facilities will provide access to the MSDS to State and Local officials and fire departments.

Facilities will report inventories for all substances for which a MSDS is required.

Information will be made available to the public upon request.

## **Section 313              Toxic chemical release inventory**

Facilities will submit a Toxic Release Inventory Form (TRI) annually if they possess one or more of the 600 applicable chemicals.

[Emergency  
Planning  
Who Must Comply  
40 CFR 355.10](#)

[Release  
Notification  
Who Must Comply  
40 CFR 355.30](#)

[TRI  
Program  
Web Site](#)



# Part 2 Learning Points

## True or False

1. The Federal government has been aware of issues surrounding uncontrolled waste disposal since at least the 1960s.
2. In the hazardous waste regulations the term 'cradle to grave' refers to contamination of small children.
3. Land Ban Provisions refers to a mandate to stop hazardous waste disposal in land fills.
4. The 1985 chemical release in Institute, West Virginia was not given much consideration.

# Part 2 Learning Points

## True or False

1. The Federal government has been aware of issues surrounding uncontrolled waste disposal since at least the 1960s. **TRUE**
2. In the hazardous waste regulations the term 'cradle to grave' refers to contamination of small children. **FALSE**
3. Land Ban Provisions refers to a mandate to stop hazardous waste disposal in landfills. **TRUE**
4. The 1985 chemical release in Institute, West Virginia was not given much consideration. **FALSE**

# Part 2 Learning Points

## True or False

1. The National Contingency Plan (NCP) has nothing to do with hazardous chemical release response.
2. SARA Title III and EPCRA are two very different but very important regulations.
3. The Environmental Protection Agency (EPA) is the only Federal agency that regulates hazardous materials.
4. Facilities that store and use hazardous substances in regulated quantities will have data sheets (MSDS) available to the public upon request.

# Part 2 Learning Points

## True or False

1. The National Contingency Plan (NCP) has nothing to do with hazardous chemical release response. **FALSE**
2. SARA Title III and EPCRA are two very different but very important regulations. **FALSE**
3. The Environmental Protection Agency (EPA) is the only Federal agency that regulates hazardous materials. **FALSE**
4. Facilities that store and use hazardous substances in regulated quantities will have data sheets (MSDS) available to the public upon request. **TRUE**



# LOCAL EMERGENCY PLANNING COMMITTEE

## LEPC RESPONSIBILITIES

Development, training, and testing of the hazardous substances emergency response plan for the community

Development of procedures for regulated facilities to provide informational and emergency notification to the LEPC

Development of procedures for receiving and processing requests from the public under EPCRA

Provision for public notification of LEPC activities

A major role for LEPCs is to work with industry and the interested public to encourage continuous attention to chemical safety, risk reduction, and accident prevention by each local stakeholder.

# LOCAL EMERGENCY PLANNING COMMITTEE

**How does a community develop, train, and test a hazardous substances emergency response plan?**

1. Gather data regarding the specific regulated substances that exist in the community.
2. Examine the data for similarity in hazards and thoroughly research industry MSDS.
3. Formulate a list ranking substances by risk with most injurious to humans at the top.
4. Working with responders evaluate communities ability to response to listed hazards.
5. Community and industry partners seek best practices to improve local capabilities.
6. Local responders and industry develop relationships prior to incidents.
7. Community assures equipment and training protects responders and public.
8. Annually the Local Emergency Planning Committee should select a facility and simulate the most likely release scenario with a tabletop or functional exercise.
9. Every few years the community responders and facilities should perform a full scale exercise to thoroughly test all parts or the plan that has been developed.

# **LOCAL EMERGENCY PLANNING COMMITTEE**

**How does the LEPC develop procedures for regulated facilities to provide informational and emergency notification to the LEPC?**

1. Each community should establish a public safety answering point (PSAP) for chemical releases.
2. In many communities the LEPC can partner with the PSAP and that can suffice for the LEPC notification requirement.
3. If the LEPC prefers to set up their own notification number that is acceptable also.
4. It is critical that the Fire Department be notified as they are the most common hazardous materials incident first responders.
5. Key point here is a 24/7 answering to alert the community of a chemical hazard.

# LOCAL EMERGENCY PLANNING COMMITTEE

**What are the keys to developing procedures for receiving and processing requests from the public under EPCRA?**

1. The LEPC needs a mailing address where requests may be received.
2. The LEPC should include maintain up to date contacts with facilities so the requested information is current when deliver to the requestor.
3. The procedure should include safeguards to prevent release of trade secret information or facility site plans that have been requested to keep private (both allowed under EPCRA regulation).
4. The LEPC should keep a record of requestors so that data can be captured to examine yearly LEPC activity.

# LOCAL EMERGENCY PLANNING COMMITTEE

**How can the LEPC make provisions for public notification of activities.**

1. There is often an annual newspaper reporting requirement at a minimum.
2. Many LEPCs have their own website on which to post information.
3. Your local city may offer space on their website as a community service.
4. LEPCs may be able to use training networks at local emergency service agencies.
5. LEPCs may develop relationships with the media, churches and/or local schools.



# LOCAL EMERGENCY PLANNING COMMITTEE

**How does the LEPC fulfill it's roll to work with industry and interested public to encourage continuous attention to chemical safety, risk reduction, and accident prevention by each local stakeholder?**

1. Effective emergency management is always based on relationships. The LEPC must develop trust and respect in all they do.
2. The leadership of the LEPC must help maintain direction and focus.
3. Membership must never forget that advanced response capability in the community does not in itself prevent chemical release incidents.
4. The LEPC must be sensitive to public perception and attempt to provide accurate information to keep the public informed and prepared.
5. Effective use of public platforms to provide education especially in high risk areas.

# LOCAL EMERGENCY PLANNING COMMITTEE

**What are a few examples of possible LEPC community activities?**

Providing Shelter-in-Place training to teach community members how to protect themselves and their families by retreat to an interior room in their homes.

Teaching the community what the emergency outdoor warning sirens mean and what action to take when they hear them.

Providing teachers information to help them prepare curriculum to teach children how to respond during emergencies.

Showing how an all hazards approach to emergency preparedness let you prepare for a weather event and a hazardous material accident at the same time.

Work to foster awareness in the community and develop confidence that local plans will help during times of disaster.

# LOCAL EMERGENCY PLANNING COMMITTEE

There are numerous LEPC websites and here is a sampling to demonstrate the various ways of fulfilling the LEPC responsibility.

[Chesapeake](#)  
[Virginia](#)

[Corpus](#)  
[Christi](#)  
[Texas](#)

[Rockland](#)  
[County](#)  
[New York](#)

[Brookings](#)  
[County](#)  
[South](#)  
[Dakota](#)

[Deer Park](#)  
[Texas](#)

[Sudbury](#)  
[Massachusetts](#)

# LOCAL EMERGENCY PLANNING COMMITTEE

Here are links to LEPC documents for the Commonwealth of Kentucky and some other sites for LEPC information.

[Kentucky  
SARA Title III  
Information](#)

[SERC  
Contacts For  
All States](#)

[Annual  
Notice  
Published in  
Local Paper](#)

[Find Your  
Kentucky  
LEPC](#)

[Kentucky  
LEPC  
Orientation  
Handbook](#)

[2008 LEPC  
National  
Survey](#)

# LOCAL EMERGENCY PLANNING COMMITTEE

## What's Next?

If you live in Jefferson County Kentucky and have questions about the LEPC you may look up the contact information with the [Find Your LEPC](#) link here or on the previous page.

If you want to be involved in the [LEPC](#) follow the link in the paragraph above and let them know. As an alternative method call your local emergency management office or ask someone in your local chemical industry who to contact.

Questions or comments about this module can be sent to [jim.bottom@ilgou.com](mailto:jim.bottom@ilgou.com)



# References

**Lessons from Love Canal**, A Public Health Resource, © 2003 Boston University School of Public Health,  
<http://www.bu.edu/lovecanal/canal/date.html>

**Superfund 365**, 2007, Brooke Singer , <http://turbulence.org/Works/superfund/video.html>

**Bullitt County History**, 2010, A Research Project Under the Auspices of the Bullitt County Genealogical Society, Valley of the Drums,  
<http://bullittcountyhistory.org/bchistory/valleydrum.html>

**Dioxin Home Page**, Managed by ActionPA.org, <http://www.ejnet.org/dioxin/>

**United States Department of Energy web pages used:**

<http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=60CEAD90EF8FF563A2AB776E377CF4F8?purl=/6817569-PfnWAY/>

**GPO Access, Electronic Code of Regulation, e-CFR data current 09-24-12:**

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>  
[http://www.access.gpo.gov/nara/cfr/waisidx\\_02/40cfrv24\\_02.html](http://www.access.gpo.gov/nara/cfr/waisidx_02/40cfrv24_02.html)

**Bhopal Disaster**, Wikipedia, 09-16-2012, [http://en.wikipedia.org/wiki/Bhopal\\_disaster](http://en.wikipedia.org/wiki/Bhopal_disaster)

**EPCRA Guide for Facilities**, Don't Waste Arizona, Inc., <http://www.chemicalspill.org/EPCRA-facilities/programs.html>

**Chronology of the Union Carbide Corporation**, George Draffan, Endgame Research Services, <http://www.endgame.org/carbide-history.html>

**International Air Transport Association web pages used:** <http://www.iata.org/ps/publications/dgr/Pages/index.aspx>

**United States Department of Justice web pages used:**

<http://www.justice.gov/opa/pr/1997/July97/281enr.htm>  
<http://www.justice.gov/enrd/3635.htm>

**Kentucky Division of Emergency Management**, 2009, Local Emergency Planning Committee Handbook,  
<http://kyem.ky.gov/teams/Documents/LEPC%20Orientation%20Handbook%202009.pdf>

# References

## **United States Environmental Protection Agency web pages used:**

<http://www.epa.gov/superfund/policy/remedy/sfremedy/pdfs/ncpfinalrule61.pdf>  
[http://www.epa.gov/oem/docs/chem/cleanNRT10\\_12\\_distiller\\_complete.pdf](http://www.epa.gov/oem/docs/chem/cleanNRT10_12_distiller_complete.pdf)  
[http://www.epa.gov/emergencies/content/epcra/epcra\\_plan.htm#required](http://www.epa.gov/emergencies/content/epcra/epcra_plan.htm#required)  
[http://www.epa.gov/osweroe1/content/epcra/epcra\\_storage.htm#msds](http://www.epa.gov/osweroe1/content/epcra/epcra_storage.htm#msds)  
<http://www.epa.gov/superfund/sites/npl/f891004.htm#summary1>  
[http://www.epa.gov/emergencies/docs/chem/2008\\_lepcsurv.pdf](http://www.epa.gov/emergencies/docs/chem/2008_lepcsurv.pdf)  
[http://www.epa.gov/osweroe1/content/epcra/serc\\_contacts.htm](http://www.epa.gov/osweroe1/content/epcra/serc_contacts.htm)  
[http://www.epa.gov/r5water/uic/land\\_ban\\_files/index.htm](http://www.epa.gov/r5water/uic/land_ban_files/index.htm)  
<http://www.epa.gov/r02earth/superfund/npl/0201290c.pdf>  
<http://www.epa.gov/wastes/laws-regs/rcrahistory.htm>  
<http://www.epa.gov/superfund/sites/npl/f891004.htm>  
<http://www.epa.gov/osweroe1/docs/chem/tech.pdf>  
<http://www.epa.gov/osw/laws-regs/rcrahistory.htm>  
<http://www.epa.gov/osweroe1/content/epcra/>  
<http://www.epa.gov/agriculture/lcra.html>  
<http://www.epa.gov/tri/>

## **United States Occupational Health and Safety Administration web pages used:**

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=PREAMBLES&p\\_id=1084](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=PREAMBLES&p_id=1084)  
[http://www.osha.gov/FedReg\\_oshapdf/FED19870810.pdf](http://www.osha.gov/FedReg_oshapdf/FED19870810.pdf)

## **Agency for Toxic Substances and Disease Registry web pages used:**

<http://www.atsdr.cdc.gov/substances/SubstanceMap.asp>  
<http://www.atsdr.cdc.gov/cercla/>

# References

## Local Emergency Planning Committee Links

**Deer Park, TX**

<http://www.deerparklepc.org/chairman.htm>

**Corpus Christi, TX**

<http://www.cclepc.org/index2.html>

**Chesapeake, VA**

<http://www.cityofchesapeake.net/Government/Boards-Commissions/Full-Listing/Chesapeake-Local-Emergency-Planning-Committee.htm>

**Rockland Co., NY**

[http://www.co.rockland.ny.us/Fire/local\\_planning\\_bylaws.htm](http://www.co.rockland.ny.us/Fire/local_planning_bylaws.htm)

**Brookings Co., SD**

<http://www.brookingscountysd.gov/county-offices/emergency-management/local-emergency-planning-committee-lepc>

# Thank You

## About the creator of this learning module

*Jim Bottom* worked in coal fired power plant construction and maintenance for more than 14 years. In addition to duties as a millwright and a mechanical repairman he served as training officer, medial officer and assistant chief of Emergency Response Teams at 3 electric power generating stations. After leaving the wholesale power industry he worked as a corporate safety director for more than 9 years. His experience as safety director included construction and general industry compliance for 3 divisions of the corporation. Among the 3 corporate divisions he supervised hazardous chemical spill response, maintained DOT programs for hazardous and non hazardous waste hauling, supervised all regulatory training and compliance, was purchase agent for life safe equipment and developed and monitored the maintenance program for air monitoring and confined space entry equipment . He currently works for the Louisville/Jefferson County Emergency Management Agency as a technological hazards coordinator. He also performs CAA112r Risk Management Program inspections for the Metro Louisville Air Pollution Control District and is the treasurer for the local emergency planning committee.

Thank you again for taking the time to review this learning module and may you never find yourself in the midst of a situation that will ultimately influence the government to create regulation for problems that were predictable and preventable .

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